

In the Claims:

This listing of the claims will replace all prior versions, and listings, of the claims in this application.

1-5. (Canceled)

6. (Currently amended) The method of deploying an occluder in a body passageway comprising:

inserting a catheter into a body passageway, said catheter having a balloon-less blood flow blocking element affixed to the catheter, the balloon-less blood flow blocking element comprising a blood flow blocking surface with structural members which define openings therebetween,

providing said blood flow blocking element in a radially compressed state during said step of inserting,

radially expanding said blood flow blocking element into a radially expanded, passageway sealing state extending to the wall of the body passageway after said step of inserting,

said step of radially expanding being carried out without inflating a balloon using a fluid;

said step of radially expanding including providing said blood flow blocking element in said radially expanded, passageway sealing state with an outer, distally facing, generally funnel surface extending out from said distal end of said catheter, the generally funnel surface being the blood flow blocking surface; and

using said radially expanded, passageway sealing state of said blood flow blocking element for completely blocking passage of material around the outside of said catheter.

7. (Previously presented) The method according to claim 6 wherein said blood flow blocking element comprises a malecot-style blood flow blocking device.

8-9. (Canceled)

10. (Currently amended) An occluder for use in a body passageway comprising:  
a catheter having a distal end,

a balloon-less blood flow blocking element affixed to the catheter, the balloon-less blood flow blocking element comprising a blood flow blocking surface with structural members which define openings therebetween, the blood flow blocking element positioned near the distal end of the catheter,

said blood flow blocking element having a radially compressed insertion state and a radially expanded, passageway sealing state,

an actuator associated with said catheter to move said blood flow blocking element from said compressed state to said radially expanded, passageway sealing state without the use of a fluid-inflatable balloon, and

said blood flow blocking element in said radially expanded, passageway sealing state having an outer, distally facing, generally funnel surface extending out from said distal end of said catheter, the generally funnel surface being the blood flow blocking surface.

11. (Previously presented) The occluder of claim 10 further comprising an annular membrane contacting said structural members of said blood flow blocking element.

12. (Previously presented) The occluder of claim 10 wherein said blood flow blocking element comprises a malecot style device.

13. (Original) The occluder of claim 11 wherein said membrane is an elastomeric, impermeable membrane.

14. (Currently amended) The occluder of claim 10 wherein said catheter comprises a lumen and said actuator extends[[,]] through said lumen, distal of said blood flow blocking element and when moved in a proximal direction, engages said blood flow blocking element to switch said blood flow blocking element from said retracted insertion state into said radially expanded, passageway sealing state.

15. (Currently amended) A method of deploying an occluder in a body passageway comprising:

inserting a catheter into a body passageway, said catheter having a balloon-less blood flow blocking element affixed to the catheter, the balloon-less blood flow blocking element

comprising a blood flow blocking surface with structural members which define openings therebetween and an axially movable actuator operably coupleable to the blood flow blocking element,

providing said blood flow blocking element in a radially compressed state during said step of inserting,

moving the actuator thereby radially expanding said blood flow blocking element into a radially expanded, passageway sealing state extending to the wall of the body passageway thereby sealing the passageway after said step of inserting,

said step of moving the actuator being carried out without inflating a balloon using a fluid;

said step of moving the actuator including providing said [[the ]]blood flow blocking element in said radially expanded, passageway sealing state with an outer, distally facing, generally funnel surface extending out from said distal end of said catheter, the generally funnel surface being the blood flow blocking surface; and

using said radially expanded, passageway sealing state of said blood flow blocking element for completely blocking passage of material around the outside of said catheter.

16. (Original) The method according to claim 15 wherein said blood flow blocking element is a malecot-style blood flow blocking device covered with an annular elastomeric, impermeable membrane.

17-18. (Canceled)

19. (Previously presented) A medical instrument for use in a body comprising:  
an elongate member comprising a distal end,  
a balloon-less blood flow blocking element affixed to the elongate member, the balloon-less blood flow blocking element comprising a blood flow blocking surface with structural members which define openings therebetween, the blood flow blocking element positioned near said distal end of said elongate member,

an annular membrane around said structural members of said blood flow blocking element,

said blood flow blocking element having a radially compressed state and a radially expanded, passageway sealing state,

an actuator associated with said elongate member to move said blood flow blocking element from said compressed state and to said radially expanded, passageway sealing state without the use of a fluid-inflatable balloon,

said blood flow blocking element in said radially expanded passageway sealing state having an outer, distally facing, generally funnel shape surface extending from said distal end of said elongate tubular member, the generally funnel surface being the blood flow blocking surface.

20. (Original) The medical instrument of claim 19 wherein said membrane is an elastomeric, impermeable membrane.

21-24. (Canceled)

25. (Currently amended) The method of deploying an occluder in a body passageway comprising the steps of:

inserting a catheter into a body passageway, said catheter having a balloon-less blood flow blocking element affixed to the catheter, the balloon-less blood flow blocking element comprising a blood flow blocking surface with structural members which define openings therebetween, the blood flow blocking element covered with an annular elastomeric, impermeable membrane, and an axially movable actuator operably coupleable to a distal portion of the blood flow blocking element,

providing said blood flow blocking element in a radially compressed state during said step of inserting, and

moving the actuator thereby:

radially expanding said blood flow blocking element into a radially expanded, passageway sealing state extending to the wall of the body passageway thereby sealing the passageway after said step of inserting,

said step of radially expanding being carried out without inflating a balloon using a fluid, and

forming an outer, distally facing, generally funnel surface extending out from said distal end of said catheter, the generally funnel surface being the blood flow blocking surface;

and

using said expanded, passageway sealing state of said blood flow blocking element for completely blocking passage of material around the outside of said catheter.

26. (Canceled)

27. (Original) The method of claim 25 wherein the actuator moving step comprises proximally pulling the actuator.

28. (Previously presented) The method according to claim 7 further comprising an annular impermeable membrane associated with the malecot-style blood flow blocking device.

29-56. (Canceled)

57. (New) The method according to claim 6 further comprising:  
maintaining the catheter with the blood flow blocking element affixed thereto within the body passageway; and

following the catheter maintaining step;  
radially contracting the blood flow blocking element; and  
removing the catheter and the blood flow blocking element therewith from the body passageway.

58. (New) The method according to claim 15 further comprising:  
maintaining the catheter with the blood flow blocking element affixed thereto within the body passageway; and  
following the catheter maintaining step;  
radially contracting the blood flow blocking element; and  
removing the catheter and the blood flow blocking element therewith from the body passageway.

59. (New) The method according to claim 25 further comprising:  
maintaining the catheter with the blood flow blocking element affixed thereto within the body

passageway; and

following the catheter maintaining step:

radially contracting the blood flow blocking element; and

removing the catheter and the blood flow blocking element therewith from the body passageway.

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